WHAT IS CLAIMED IS:

1. A monoclonal antibody that specifically binds to an isolated A-type substance obtainable from human liver or placenta, wherein the substance is a cyclitol-containing carbohydrate comprising a Zn^{2+} ion and has the biological activity of regulating lipogenic activity and inhibiting cAMP dependent protein kinase.

2. The monoclonal antibody of claim 1 wherein the substance comprises phosphate.

3. A hybridoma producing the monoclonal antibody of claim 1.

4. A pharmaceutical composition comprising the monoclonal antibody of claim 1 in combination with a pharmaceutically acceptable carrier.

5. The monoclonal antibody of claim 1, wherein the monoclonal antibody is an antagonist having the property of:

a) inhibiting the release of the A-type substance;

b) binding to the A-type substance and thereby reducing its level; and/or

c) reducing a biological activity of the A-type substance.

6. The monoclonal antibody of claim 1, wherein the monoclonal antibody is linked, directly or indirectly, to a label.

7. The monoclonal antibody of claim 1, wherein the monoclonal antibody is immobilized on a solid phase.

8. An immunoassay method comprising:

a) contacting a biological sample with the monoclonal antibody of claim 1 under suitable conditions for specific binding of the monoclonal antibody to A-type substance present in the sample, if any; and

b) determining whether the monoclonal antibody binds specifically to the sample.

9. The immunoassay method of claim 8, additionally comprising measuring the amount of specific binding as an indication of the concentration of the A-type substance in the sample.

10. The immunoassay method of claim 9, additionally comprising determining the concentration of one or more P-type inositolphosphoglycans (IPGs) and then determining the ratio of the concentration of P-type IPG(s) to the concentration of the A-type substance determined in the immunoassay method.

11. A monoclonal antibody that specifically binds to a A-type cyclitol-containing carbohydrate substance comprising a Zn^{2+} ion, wherein the substance has the biological activity of regulating lipogenic activity and inhibiting cAMP dependent protein kinase and:

(a) a molecular weight determined using negative mode MALDI mass spectroscopy as shown in tables 3 and 4, or a molecular weight related to one of the molecular weights set out in tables 3 and 4 by the addition or subtraction of one or more structure units of about 211 m/z; or,

(b) a molecular weight determined using positive mode MALDI mass spectroscopy as shown in table 5, or a molecular weight related to one of the molecular weights set out in table 5 by the addition or subtraction of one or more structure units of about 211m/z.

12. The monoclonal antibody of claim 11 wherein the substance comprises phosphate.

13. A hybridoma producing the monoclonal antibody of claim 11.

14. A pharmaceutical composition comprising the monoclonal antibody of claim 11 in combination with a pharmaceutically acceptable carrier.

15. The monoclonal antibody of claim 11, wherein the monoclonal antibody is an antagonist having the property of:

a) inhibiting the release of the A-type substance;

b) binding to the A-type substance and thereby reducing its level; and/or

c) reducing a biological activity of the A-type substance.

16. The monoclonal antibody of claim 11, wherein the monoclonal antibody is linked, directly or indirectly, to a label.

17. The monoclonal antibody of claim 11, wherein the monoclonal antibody is immobilized on a solid phase.

18. An immunoassay method comprising:

a) contacting a biological sample with the monoclonal antibody of claim 11 under suitable conditions for specific binding of the monoclonal antibody to A-type substance present in the sample, if any; and

b) determining whether the monoclonal antibody binds specifically to the sample.

19. The immunoassay method of claim 18, additionally comprising measuring the amount of specific binding as an indication of the concentration of the A-type substance in the sample.

20. The immunoassay method of claim 19, additionally comprising determining the concentration of one or more P-type inositolphosphoglycans (IPGs) and then determining the ratio of the concentration of P-type IPG(s) to the concentration of the A-type substance determined in the immunoassay method.